IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

(Attorney Docket No. 14179US02)

In the Application of:

Ed H. Frank

Serial No.: 10/658,514

Filed: September 09, 2003

For: METHOD AND SYSTEM FOR NETWORK MANAGEMENT IN A HYBRID WIRED/WIRELESS NETWORK

Examiner: Chea, Philip J.

Group Art Unit: 2453

Confirmation No.: 1784

Electronically Filed on November 16, 2009

APPEAL BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from an Office Action mailed on May 11, 2009 ("Final Office Action"), in which claims 1-36 were finally rejected. The Appellant respectfully requests that the Board of Patent Appeals and Interferences ("Board") reverse the final rejection of claims 1-36 of the present application. The Appellant notes that this Appeal Brief is timely filed within the period for reply that ends on November 16, 2009.

REAL PARTY IN INTEREST

(37 C.F.R. § 41.37(c)(1)(i))

Broadcom Corporation, a corporation organized under the laws of the state of California, and having a place of business at 5300 California Avenue, Irvine, California 92617, has acquired the entire right, title and interest in and to the invention, the application, and any and all patents to be obtained therefor, as set forth in the Assignment recorded at Reel 014199, Frame 0855 in the PTO Assignment Search room.

RELATED APPEALS AND INTERFERENCES
(37 C.F.R. § 41.37(c)(1)(ii))

The Appellant is unaware of any related appeals or interferences.

STATUS OF THE CLAIMS
(37 C.F.R. § 41.37(c)(1)(iii))

The present application includes pending claims 1-36, all of which have been rejected. Claims 1-7, 9-16, 18-25, 27-34, 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over USPP 2001/0024434 ("Ayyagari") in view of USPP 2002/0165990 ("Singhal"). Claims 8, 17, 26, 35 are rejected under 35 USC 103(a) as allegedly being unpatentable over Ayyagari and Singhal as applied to claims 1, 10, 19 and 28, and further in view of USPP 2003/0142651 ("Matta"). The Appellant identifies claims 1-36 as the claims that are being appealed. The text of the pending claims is

provided in the Claims Appendix.

STATUS OF AMENDMENTS
(37 C.F.R. § 41.37(c)(1)(iv))

The Appellant has not amended any claims subsequent to the final rejection of claims 1-36 mailed on May 11, 2009.

SUMMARY OF CLAIMED SUBJECT MATTER
(37 C.F.R. § 41.37(c)(1)(v))

The Appellant has inserted Figs. 2 and 3 of the present application below, to illustrate one aspect of the invention.

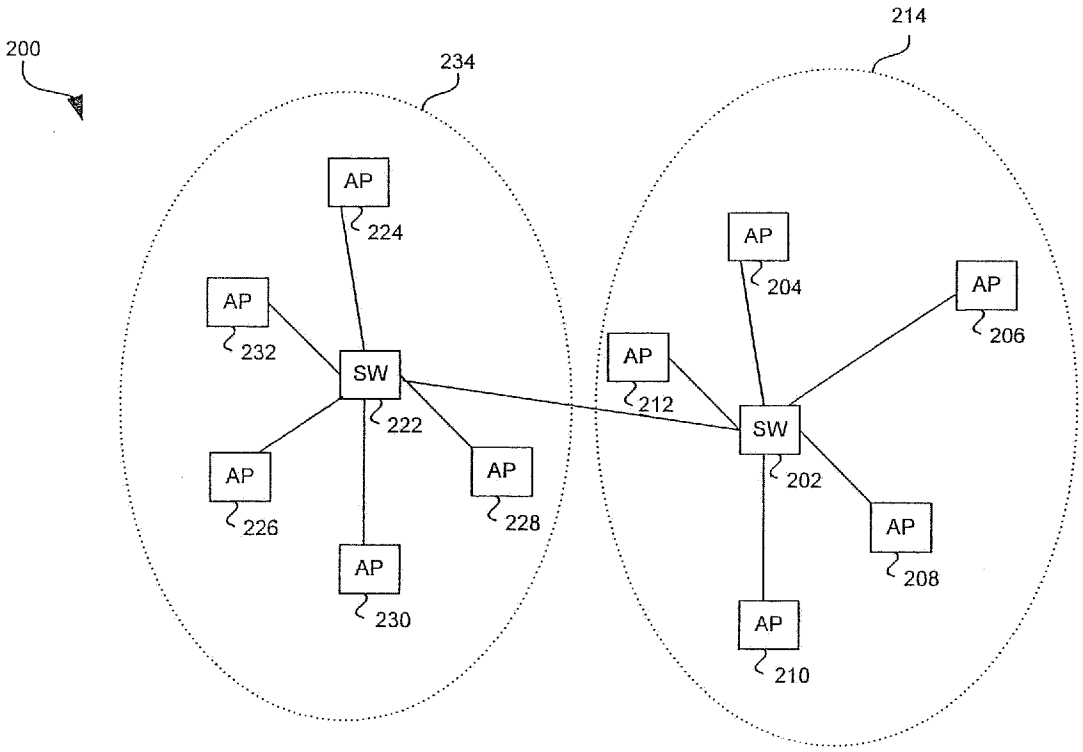

FIG. 2

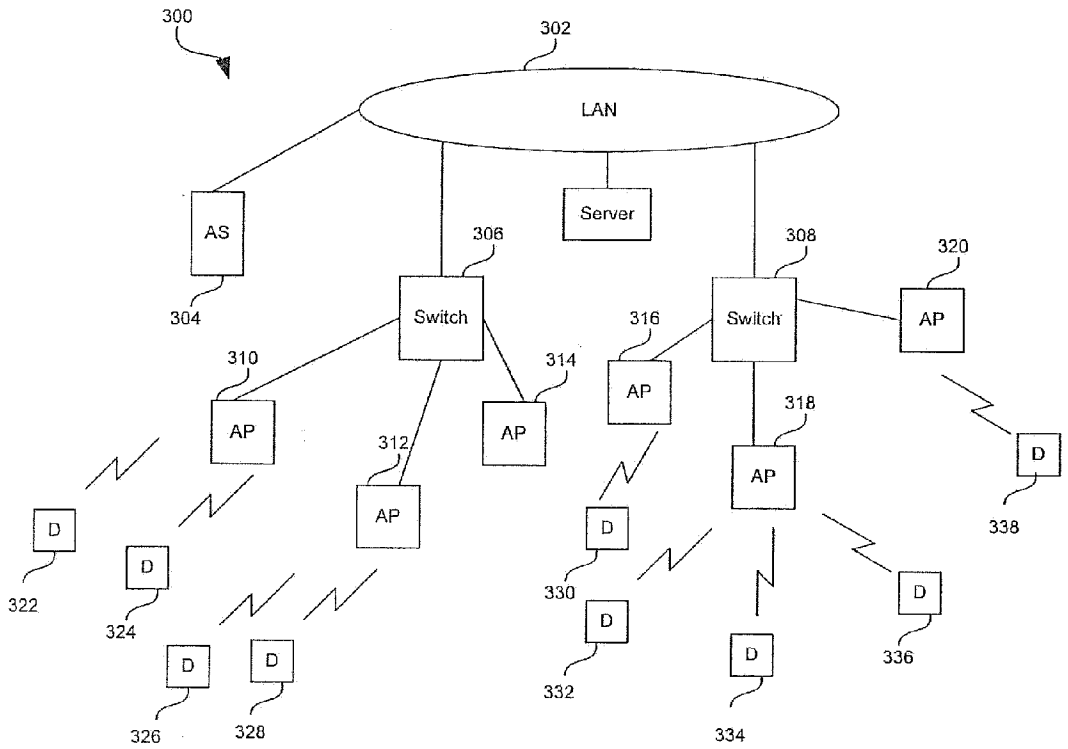

FIG. 3

The invention of claim 1 is illustratively described in, for example, the "Detailed Description of the Invention" at paragraphs [41]-[94], and at least the detail descriptions of Figs. 1a-9b. For example, claim 1 recites "a method for providing network management in a hybrid wired/wireless local area network (e.g., hybrid wired/wireless LAN 200 and 300 of Figs. 2 and 3, respectively), the method including: receiving at a network device (e.g., select from one of access devices 322 to 338 in Fig. 3), from one or both of a first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3) and/or a first switch (e.g., switch 222 in Fig. 2 or switch 306 in Fig. 3), a first messaging protocol

message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68] , where six categories of messages are illustrated in paragraph [65]) containing quality of service (QoS) information; responsive to said first messaging protocol message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68] , where six categories of messages are illustrated in paragraph [65]), determining at least a minimum QoS level for operation of one or more of said first switch (e.g., switch 222 in Fig. 2 or switch 306 in Fig. 3), said first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3), a second access point (e.g., AP 226 in Fig. 2, or AP 310 in Fig. 3), and/or a second switch (e.g., switch 202 in Fig. 2 or switch 308 in Fig. 3); and distributing by said network device (e.g., selected one of access devices 322 to 338 in Fig. 3), QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3), said first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3), said second access point (e.g., AP 226 in Fig. 2, or AP 310 in Fig. 3) and/or said second switch (e.g., switch 202 in Fig. 2 or switch 308 in Fig. 3), using a second messaging protocol message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68], where six categories of messages are illustrated in paragraph [65]), wherein said second messaging protocol message is different from said first messaging protocol message (e.g., corresponding message pair subtypes, for example, a .request first message would receive a .data as response in the second message, and a .alert

first message would receive a .ack response in the second message, see paragraph [66]).

Claims 2-9 are dependent directly or indirectly upon independent claim 1.

The invention of claim 10 is illustratively described in, for example, the "Detailed Description of the Invention" at paragraphs [41]-[94], and at least the detail descriptions of Figs. 1a-9b. For example, claim 10 recites "a machine-readable storage (e.g. computer program product), having stored thereon a computer program having at least one code section for providing network management in a hybrid wired/wireless local area network (e.g., hybrid wired/wireless LAN 200 and 300 of Figs. 2 and 3, respectively), the method including: receiving at a network device (e.g., select from one of access devices 322 to 338 in Fig. 3), the at least one code section executable by a machine (e.g. computer) for causing the machine to perform the steps including: receiving at a network device (e.g., select from one of access devices 322 to 338 in Fig. 3), from one or both of a first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3) and/or a first switch (e.g., switch 222 in Fig. 2 or switch 306 in Fig. 3), a first messaging protocol message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68] , where six categories of messages are illustrated in paragraph [65]) containing quality of service (QoS) information; responsive to said first messaging protocol message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68] , where six categories of messages are illustrated in paragraph [65]), determining at least a minimum QoS level for operation of

one or more of said first switch (e.g., switch 222 in Fig. 2 or switch 306 in Fig. 3), said first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3), a second access point (e.g., AP 226 in Fig. 2, or AP 310 in Fig. 3), and/or a second switch (e.g., switch 202 in Fig. 2 or switch 308 in Fig. 3); and distributing by said network device (e.g., selected one of access devices 322 to 338 in Fig. 3), QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3), said first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3), said second access point (e.g., AP 226 in Fig. 2, or AP 310 in Fig. 3) and/or said second switch (e.g., switch 202 in Fig. 2 or switch 308 in Fig. 3), using a second messaging protocol message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68], where six categories of messages are illustrated in paragraph [65]), wherein said second messaging protocol message is different from said first messaging protocol message (e.g., corresponding message pair subtypes, for example, a .request first message would receive a .data as response in the second message, and a .alert first message would receive a .ack response in the second message, see paragraph [66]).

Claims 11-18 are dependent directly or indirectly upon independent claim 10.

The invention of claim 19 is illustratively described in, for example, the "Detailed Description of the Invention" at paragraphs [41]-[94], and at least the detail descriptions of Figs. 1a-9b. For example, claim 19 recites "a system for providing network management in a hybrid wired/wireless local area network (e.g., hybrid wired/wireless

LAN 200 and 300 of Figs. 2 and 3, respectively), the method including: receiving at a network device (e.g., select from one of access devices 322 to 338 in Fig. 3), the system including: at least one receiver (e.g., receiver 406 in Fig. 4) adapted to receive from one or both of a first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3) and/or a first switch (e.g., switch 222 in Fig. 2 or switch 306 in Fig. 3), a first messaging protocol message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68] , where six categories of messages are illustrated in paragraph [65]) containing quality of service (QoS) information; at least one controller (e.g., controller 412 in Fig. 4) adapted to determine at least a minimum QoS level for operation of one or more of said first switch (e.g., switch 222 in Fig. 2 or switch 306 in Fig. 3), said first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3), a second access point (e.g., AP 226 in Fig. 2, or AP 310 in Fig. 3), and/or a second switch (e.g., switch 202 in Fig. 2 or switch 308 in Fig. 3); and distributing by said network device (e.g., selected one of access devices 322 to 338 in Fig. 3) in response to said first messaging protocol message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68] , where six categories of messages are illustrated in paragraph [65]); and said at least one controller (e.g., controller 412 in Fig. 4) adapted to distribute QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch (e.g., switch 222 in Fig. 2 or switch 306 in Fig. 3), said first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3), and/or second access point (e.g., AP 226 in Fig. 2, or AP 310 in Fig. 3) and said second

switch (e.g., switch 202 in Fig. 2 or switch 308 in Fig. 3), using a second messaging protocol message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68], where six categories of messages are illustrated in paragraph [65]), wherein said second messaging protocol message is different from said first messaging protocol message (e.g., corresponding message pair subtypes, for example, a .request first message would receive a .data as response in the second message, and a .alert first message would receive a .ack response in the second message, see paragraph [66]).

Claims 20-27 are dependent directly or indirectly upon independent claim 19.

The invention of claim 28 is illustratively described in, for example, the "Detailed Description of the Invention" at paragraphs [41]-[94], and at least the detail descriptions of Figs. 1a-9b. For example, claim 28 recites "a system for providing network management in a hybrid wired/wireless local area network (e.g., hybrid wired/wireless LAN 200 and 300 of Figs. 2 and 3, respectively), the system including: at least one controller (e.g., controller 412 in Fig. 4) adapted to determine from a first messaging protocol message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68] , where six categories of messages are illustrated in paragraph [65]) containing quality of service (QoS) information and received from one or both of a first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3) and a first switch (e.g., switch 222 in Fig. 2 or switch 306 in Fig. 3), at least a minimum QoS level for operation of one or more of said first switch (e.g., switch 222 in Fig. 2 or switch 306 in Fig. 3), said first access point (e.g., AP 230 in

Fig. 2, or AP 312 in Fig. 3), a second access point (e.g., AP 226 in Fig. 2, or AP 310 in Fig. 3), and/or said second switch (e.g., switch 202 in Fig. 2 or switch 308 in Fig. 3); and said at least one controller (e.g., controller 412 in Fig. 4) adapted to distribute QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch (e.g., switch 222 in Fig. 2 or switch 306 in Fig. 3), said first access point (e.g., AP 230 in Fig. 2, or AP 312 in Fig. 3), said second access point (e.g., AP 226 in Fig. 2, or AP 310 in Fig. 3) and/or said second switch (e.g., switch 202 in Fig. 2 or switch 308 in Fig. 3), using a second messaging protocol message (e.g. a device communication protocol umbrella [DCPU] run over TCP or UDP, see paragraph [63], such as SNMP and RMON, see paragraph [68] , where six categories of messages are illustrated in paragraph [65]), wherein said second messaging protocol message is different from said first messaging protocol message (e.g., corresponding message pair subtypes, for example, a .request first message would receive a .data as response in the second message, and a .alert first message would receive a .ack response in the second message, see paragraph [66]).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. § 41.37(c)(1)(vi))

Claims 1-7, 9-16, 18-25, 27-34, 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over USPP 2001/0024434 ("Ayyagari") in view of USPP 2002/0165990 ("Singhal"). Claims 8, 17, 26, 35 are rejected under 35 USC 103(a) as

allegedly being unpatentable over Ayyagari and Singhal as applied to claims 1, 10, 19 and 28, and further in view of USPP 2003/0142651 ("Matta").

ARGUMENT

(37 C.F.R. § 41.37(c)(1)(vii))

REJECTION UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 ("MPEP") states the following:

> The key to **supporting** any rejection under 35 U.S.C. 103 is the **clear articulation** of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396 (2007) noted that **the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit**. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the Appellant is under no obligation to submit evidence of nonobviousness:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the Appellant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

I. The Proposed Combination of Ayyagari and Singhal Does Not Render Claims 1-7, 9-16, 18-25, 27-34, 36 Unpatentable

The Appellant now turns to the rejection of claims 1-7, 9-16, 18-25, 27-34, 36 as being unpatentable over Ayyagari in view of Singhal.

A. Independent Claims 1, 10, 19 and 28

With regard to the rejection of independent claim 1 under 35 U.S.C. § 103(a), the Appellant submits that the combination of Ayyagari and Singhal does not disclose or suggest at least the limitation of "**receiving at a network device, from one or both of a first access** point **and/or a first switch**, **a first messaging protocol message** containing quality of service (QoS) information," as recited in the Appellant's claim 1.

In order to help understanding, the Appellant has inserted Ayyagari's Fig. 2 for reference:

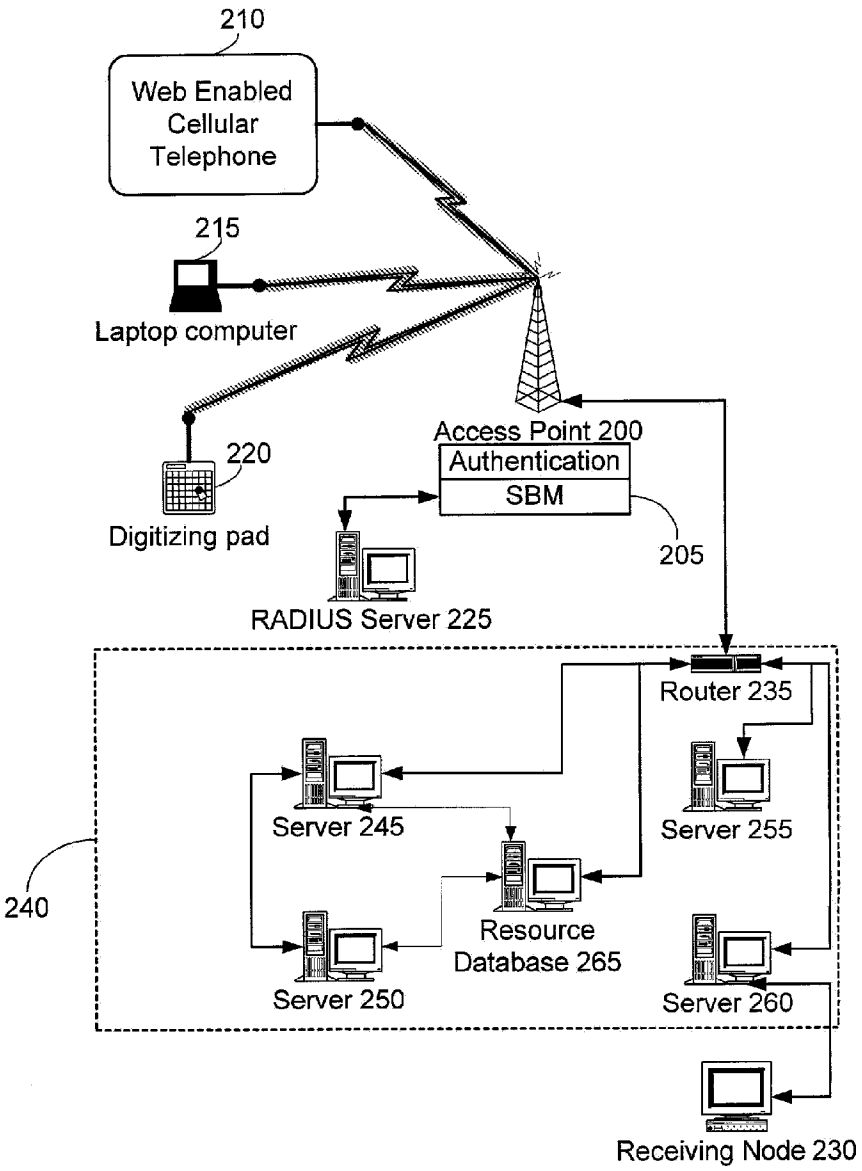

FIGURE 2

The Examiner states the following in the Final Office Action:

As per claims 1,10,19,28, Ayyagari discloses a method for providing network management in a local area network, the method comprising:

"receiving at a network device, from one or both of a first access point

> and/or a first switch, a first messaging protocol message containing quality of service (QoS) information (see paragraph 48, showing how **a router** i. e. network device, **receives QoS request from access pointer** [200];"

See the Final Office Action at page 3. The Examiner relies for support on Fig. 2 and the following citation of Ayyagari:

> "The laptop computer 215, which is one of the wireless devices 210, 215 or 220, requests access to a network to communicate, with a specified QoS specifying the required bandwidth, time constraints and the like, with a receiving node 230. In response, **the access point 200 sends a message requesting QoS to a router 235.** The router 235 manages packet flow through a subnet 240 to allow the requested communication access to the receiving node 230."

See Ayyagari at ¶0048 (emphasis added). The Examiner equates Ayyagari's Access Point 200, router 235 and message requesting QoS, to Appellant's "Access Point", "network device" and "message containing QoS information", respectively. The Examiner also alleges that Ayyagari discloses that the **router** [235] (the alleged "network device") **receives QoS request from access pointer** [200], and equates to "**receiving at a network device**, **from** one or both of **a first access point** and/or a first switch, a first messaging protocol **message containing quality of service (QoS) information,**" as recited in Appellant's claim 1.

The Appellant respectfully disagrees, and points out that the Examiner seems to have mistaken Ayyagari's AP 200, that sends "message **requesting** QoS" to the router 235, **as if the AP "message" itself, contains QoS information** . However, Ayyagari (*see* ¶0048), discloses that AP performs the function of requesting from the router (the

alleged "network device") QoS information. In other words, **the AP "message" itself is merely a "request message for QoS"**, which **does not contain QoS information**, contrary to the Examiner's allegation.

Furthermore, Ayyagari (*see* ¶0048) discloses that it is **the router** 235 (the alleged "network device"), which **provides** the **QoS information (via the SBM function)**, according to the AP "message request". In this regard, the router 235 (the alleged "network device") does not receive any message that contains QoS information from the AP 200 at all. Therefore, the Examiner is incorrect, in equating Ayyagari's "**the access point 200 sends a message requesting QoS to a router 235**" to "**receiving at a network device, from** one or both of **a first access point** and/or a first switch, a first messaging protocol **message containing quality of service (QoS) information**," as recited in Appellant's claim 1.

Moreover, even assuming arguendo, that Ayyagari's AP "message request" itself contains QoS information (which it does not), the Examiner's argument is still deficient. The Examiner is referred to Appellant's argument (see 7/13/09 response in pages 13-15), that Ayyagari's "access point 200 **sending a message requesting QoS to a router** 235" (i.e., the SBM 240), is in fact, **an internal message within the AP** 200. Ayyagari therefore does not disclose "**receiving at a network device, from** one or both of **a first access point** ..., **a first messaging protocol message containing QoS information**," as recited in Appellant's claim 1.

For example, Ayyagari states the following:

> "FIG. 2 illustrates **a computing environment** having **an access point 200 ("AP") with a subnet bandwidth manager and authentication software 205** to control access to a network via wireless links by exemplary wireless devices, viz., web-enabled cell phone 210, laptop computer 215 and a digitizing pad 220…"

See Ayyagari at ¶0047 (emphasis added). Ayyagari discloses that **the AP 200 is a computing environment**, which includes: a **subnet bandwidth manager** (SBM) 240 and an authentication software 205. The Examiner is further referred to Ayyagari's abstract, which states the following:

> "…The invention combines **a subnet bandwidth manager ("SBM") at an access point ("AP")** to track allocations of wireless bandwidth…"

See Ayyagari's abstract (emphasis added). Ayyagari, in the citation above, discloses that **the SBM 240 is at the AP 200**. In other words, the SBM 240 is an integral functional part of the AP computing environment (*see* Ayyagari at ¶0047). Ayyagari's Fig. 2 also discloses that the router 235 is internal to the SBM 240. In other words, the router 235 is inherently integral to the AP 200 by virtue of being a within the SBM 240. In this regard, the router 235 is also an integral part of the aggregate AP 200 computing environment. Therefore, any message that is sent/received within the aggregate AP 200 computing environment (i.e., the AP 200 sending a message requesting QoS to the router 235), is merely **an internal message within the aggregate** AP 200 computing environment.

Based on the foregoing rationale, the Appellant maintains that Ayyagari does not disclose or suggest "**receiving <u>at</u> a network device, <u>from</u>** one or both of **a first access point** …, **a first messaging protocol message containing QoS information**," as recited in Appellant's claim 1.

The Examiner stated the following argument in the Final Office Action:

> "…the Examiner concedes that **the SBM can be a function of the access point**. However, the Examiner believes **the router, is a separate device from the access point**. The access point sends a message requesting QoS to a router 235. Router 235 is not equivalent to SBM 240. Therefore, the rejection stands with the router considered as the network device, receiving a protocol message from an access point."

See Final Office Action at page 6 (emphasis added). The Examiner conceded that "**the SBM can be a function of the access point**", however, the Examiner argued that the router 235 is a separate device from the AP 200. The Examiner's argument is still moot, since the router 235 is within the SBM 240, and the Examiner conceded that the SBM can be a function of the AP 200, **in effect, the Examiner also conceded that the router 235 can be a function of the AP 200**. Therefore, based on the foregoing rationale, the router 235 is still an integral functional part of the AP 200 (i.e., the computing environment), and does not need to be within the same device as the AP 200, as alleged by the Examiner.

In addition, the Examiner stated the following in the Final Office Action:

> "Furthermore, the Examiner does not agree that Ayyagari discloses the SBM as a functional part of the router. The Applicant has not provided any evidence that the access point [200], SBM [240], and router [235] are the

> same device." Even if they were the same device, an internal message sent from the access point to the router would still meet the limitation of the claims since it is not claimed that the receiving network device is separate from the first access point and/or switch."

See Final Office Action at page 6 (emphasis added). The Examiner seems to have misread Appellant's arguments. The Appellant did not argue that "the SBM as a functional part of the router". Instead, the Appellant argued that the "the SBM as an **integral functional part of the AP** 200", where the router 235 is within the SBM 240 (*see* Fig. 2). The Examiner is further reminded that Ayyagari clearly discloses that the "**AP 200**" **is an aggregate computing environment** (see Ayyagari at ¶0047), which includes the SBM 240, and the abstract also discloses that the SBM 240 is at the AP 200. In this regard, **the router** 235, by virtue of being within the SBM, **is an integral functional part of the AP aggregate computing environment**.

Therefore, based on the foregoing rationale, the Examiner's argument that the Appellant needs to show that Ayyagari's router 235 (the alleged "network device"), the SBM 240 and the AP 200, being the "same device", contradicts to the AP 200 **aggregate computing environment** disclosure of Ayyagari, and is now moot.

The Examiner also stated the following in the Final Office Action:

> Even if they were the same device, an internal message sent from the access point to the router would still meet the limitation of the claims since **it is not claimed that the receiving network device is separate from the first access point and/or switch**."

See Final Office Action at page 6 (emphasis added). The Appellant respectfully disagrees, refers the Examiner to MPEP 2111.01, section I that states: "the words of a

claim must be given their "plain meaning" unless they are defined in the specification. In this regard, Ayyagari (see Ayyagari at ¶0047 and the abstract) discloses that the aggregate computing environment AP 200, includes the SBM 240 with the router 235 (*see* Fig. 2) being a part of the SBM 240.

Based on the foregoing rationale, Ayyagari's router 235 is therefore within the AP 200. Since Appellant's specification, nor claim 1 discloses that the network device and the first AP and/or the switch, is "not separate" from each other, therefore, the Examiner's above argument that the Appellant's claim 1 needs to specify that the network device is separate from the first AP and/or the switch, is contrary to Appellant's disclosure and "plain meaning of the claim" (*see* MPEP 2111.01, section I). The Examiner's above argument is therefore, also moot.

> Furthermore, regarding claim 1, the Examiner conceded the following:
>
> "Although the system disclosed by Ayyagari shows substantial features of the claimed invention (discussed above), **it fails to disclose that the first (second) messaging protocol is different from the first messaging protocol**."

See Final Office Action at page 3 (emphasis added). The Examiner turned to Singhal to disclose the above deficiencies of Ayyagari and states the following:

> "Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Ayyagari, as evidenced by Singhal…
>
> Given the teaching of Singhal, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Ayyagari by employing a network device that can provide a first messaging protocol and a second messaging protocol where the first wireless messaging protocol is different than the wired second messaging protocol, such as disclosed by Singhal, in order to communicate quality of

> service information to wireless network and wired networks from a single device. In considering the second messaging protocol being different than the first messaging protocol, the router and access point disclosed in Ayyagari would be a single device with both wireless access point and wired router capabilities… Therefore, if a wireless message was being sent from a wireless node to the network device, and the network device passes messages to a wired node, the second messaging protocol would be different than the first."

See Final Office Action at page 4 (emphasis added). The Examiner seemed to allege that Singhal's disclosure of both a wireless network and wired network would provide obviousness evidence to modify Ayyagari to use a **different** second messaging protocol message for both types of networks (i.e., wired and wireless network). The Appellant respectfully disagrees and points out that Singhal in the entire reference does not even disclose or suggest using any messaging protocol message at all. In this regard, the Appellant maintains that there is no support to the Examiner's allegation that combining Singhal with Ayyagari would show obviousness to modify Ayyagari to use two different messaging protocol messages in Singhal.

Furthermore, even assuming for the sake of argument that Ayyagari can be modified to use two different messaging protocol messages, the Examiner's argument is still moot since Ayyagari discloses that the alleged network device (i.e., the router 235) and the AP 200 are being the same aggregate computing environment. In other words, irrespective of how many different types of messaging protocol messages are used, the messaging protocol messages would never have left the aggregate computing environment of AP 200. In other words, such messages would not have left the AP 200 itself.

At page 2 of the Advisory Office Action, the Examiner merely reiterated without providing support or substantive argument, that Singhal's wired and wireless protocols use different messaging protocols. The Examiner is referred to MPEP at § 2142, that failure to provide factual support to the allegation that Singhal's wired and wireless protocols use different messaging protocols renders Singhal and Ayyagari unable to establish a prima facie case of obviousness to reject Appellant's claim 1.

Consequently, the Appellant maintains that the combination of Ayyagari's and Singhal does not establish a prima facie case of obviousness under 35 U.S.C. § 103(a) to reject claim 1, and therefore claim 1 should be allowable. The Appellant respectfully requests that the rejection of independent claim 1 under 35 U.S.C. § 103(a) be withdrawn.

Claims 10, 19 and 28 are similar in many respects to independent claim 1, and therefore, claims 10, 19 and 28 are also allowable for the same rationale as stated above with regard to claim 1. The Appellant respectfully requests that the rejection of claims 10, 19 and 28 be also withdrawn.

Furthermore, The Appellant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of the independent claims 1, 10, 19 and 28 should such a need arise.

B. Dependent Claims 2-7, 9, 11-16, 18, 20-25, 27, 29-34 and 36

Based on at least the foregoing, the Appellant believes the rejection of the independent claims 1, 10, 19 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Ayyagari in view of Singhal has been overcome and should be allowable. Claims 2-7, 9, 11-16, 18, 20-25, 27, 29-34 and 36 depend directly or indirectly from the independent claims 1, 10, 19 and 28, and are, consequently, also respectfully submitted to be allowable and requests that the rejection under 35 U.S.C. § 103(a) be withdrawn.

B(1). Rejection of Dependent Claims 5, 14, 23 and 32

The Examiner states the following in page 4 of the Final Office Action:

> "As per claims 5,14,23,32, Ayyagari further discloses **scheduling** access **by** at least one of said plurality of **access devices** to at least one of said first and second access points (see paragraph 31, showing a **scheduling of higher priority packets before lower priority packets**)."

The Examiner is referred to Appellant's arguments in claim 1, namely, the router 235 is within the aggregate computing environment AP 200 (by virtue of being within the SBM 240), and not the alleged access device. Since Ayyagari (see ¶0031) discloses that **scheduling** is performed by the SBM 240 (being part of AP 200), in other words, the scheduling is performed by the AP 200, and not by the access devices (i.e., laptop 215, cellular telephone 210 or digitized pad 220). In addition, Singhal does not overcome the above deficiencies of Ayyagari.

Accordingly, the Appellant maintains that the combination of Ayyagari and Singhal does not disclose or suggest "scheduling access by at least one of said plurality of access devices to one or both of said first and/or said second access points," as

recited in Appellant's claim 5. Claim 5 is submitted to be allowable. Claim 14, 23 and 32 are similar to claim 5 in many respects, and is also submitted to be allowable.

B(2). Rejection of Dependent Claims 6, 15, 24 and 33

The Examiner states the following in page 5 of the Final Office Action:

> "As per claims 6,15,24,33, Ayyagari further discloses distributing said QoS information to at least a portion of the hybrid wired/wireless local area network (see paragraph 48)."

The Examiner relies for support on the following citation of Ayyagari:

> "The laptop computer 215, which is one of the wireless devices 210, 215 or 220, requests access to a network to communicate, with a specified QoS specifying the required bandwidth, time constraints and the like, with a receiving node 230. In response, the access point 200 sends a message requesting QoS to a router 235. **The router 235** manages packet flow through a subnet 240 **to allow the requested communication access to the receiving node 230**."

See Ayyagari at ¶0048 (emphasis added). Ayyagari discloses that **it is the router of SBM** 240 (i.e., **the aggregate AP 200**), and therefore not the wireless devices 210, 215 or 220 (the alleged "access devices"), which distributes the specified QoS to the receiving node 230. In addition, Singhal does not overcome the above deficiencies of Ayyagari.

Accordingly, the Appellant maintains that the combination of Ayyagari and Singhal does not disclose or suggest "said distributing comprises distributing said QoS information to at least a portion of the hybrid wired/wireless local area network," as

recited in Appellant's claim 6. Claim 6 is submitted to be allowable. Claim 15, 24 and 33 are similar to claim 6 in many respects, and is also submitted to be allowable.

B(3). Rejection of Dependent Claims 7, 16, 25 and 34

The Examiner states the following in page 5 of the Final Office Action:

> "As per claims 7,16,25,34, Ayyagari further discloses allocating bandwidth to maintain said at least a minimum QoS level (see paragraphs 17-18)."

The Examiner relies for support on the following citation of Ayyagari:

> "The wireless link includes an access point ("AP") having an SBM to track allocations of wireless bandwidth. **The AP allows transmission in allocated time intervals to stations** ("STA") that succeed in competing for the right to transmit."

See Ayyagari at ¶0017 (emphasis added). Ayyagari discloses that **it is the AP 200 (the aggregated AP**), and therefore not the wireless devices 210, 215 or 220 (the alleged "access devices"), which allocated time intervals for transmission. In addition, the Appellant also points out that "time interval allocation" is unrelated to "bandwidth allocation". Singhal does not overcome the above deficiencies of Ayyagari.

Accordingly, the Appellant maintains that the combination of Ayyagari and Singhal does not disclose or suggest "allocating bandwidth to maintain said at least a minimum QoS level," as recited in Appellant's claim 7. Claim 7 is submitted to be

allowable. Claim 16, 25 and 34 are similar to claim 7 in many respects, and is also submitted to be allowable.

The Appellant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of dependent claims 2-7, 9, 11-16, 18, 20-25, 27, 29-34 and 36 should such a need arise.

C. The Proposed Combination of Ayyagari, Singhal and Matta Does Not Render Claims 8, 17, 26 and 35 Unpatentable

Based on at least the foregoing, the Appellant believes the rejection of the independent claims 1, 10, 19 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Ayyagari in view of Singhal has been overcome and should be allowable. Matta does not overcome the deficiencies of Ayyagari and Singhal. Claims 8, 17, 26 and 35 depend directly or indirectly from the independent claims 1, 10, 19 and 28, and are, consequently, also respectfully submitted to be allowable and requests that the rejection under 35 U.S.C. § 103(a) be withdrawn.

The Appellant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of dependent claims 8, 17, 26 and 35 should such a need arise.

CONCLUSION

For at least the foregoing reasons, the Appellant submits that claims 1-36 are not rendered obvious over the combination of Ayyagari, Singhal and Matta. Reversal of the Examiner's rejection and issuance of a patent on the application are therefore requested.

The Commissioner is hereby authorized to charge $540 (to cover the Brief on Appeal Fee) and any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Respectfully submitted,

Date: November 16, 2009

/ Frankie W. Wong /

Frankie W. Wong
Registration No. 61,832
Patent Agent for Appellant

MCANDREWS, HELD & MALLOY, LTD.
500 WEST MADISON STREET, 34TH FLOOR
CHICAGO, ILLINOIS 60661
(312) 775-8093 (FWW)
Facsimile: (312) 775 – 8100

CLAIMS APPENDIX
(37 C.F.R. § 41.37(c)(1)(viii))

1. A method for providing network management in a hybrid wired/wireless local area network, the method comprising:

receiving at a network device, from one or both of a first access point and/or a first switch, a first messaging protocol message containing quality of service (QoS) information;

responsive to said first messaging protocol message, determining at least a minimum QoS level for operation of one or more of said first switch, said first access point, a second access point, and/or a second switch; and

distributing by said network device, QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch, said first access point, said second access point and/or said second switch, using a second messaging protocol message, wherein said second messaging protocol message is different from said first messaging protocol message.

2. The method according to claim 1, comprising providing access to at least one of a plurality of access devices based on said distributed QoS information.

3. The method according to claim 2, comprising queuing traffic associated with at least one of said plurality of access devices to maintain said determined at least a minimum QoS level.

4. The method according to claim 3, comprising prioritizing said traffic associated with at least one of said plurality of access devices to maintain said determined at least a minimum QoS level.

5. The method according to claim 2, comprising scheduling access by at least one of said plurality of access devices to one or both of said first and/or said second access points.

6. The method according to claim 1, wherein said distributing comprises distributing said QoS information to at least a portion of the hybrid wired/wireless local area network.

7. The method according to claim 1, comprising allocating bandwidth to maintain said at least a minimum QoS level.

8. The method according to claim 1, comprising balancing a load on one or both of said first switch, said first access point, said second access point and/or said second switch to maintain said at least a minimum QoS level.

9. The method according to claim 8, wherein each of said first and said second messaging protocol messages comprises one or more message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message.

10. A machine-readable storage, having stored thereon a computer program having at least one code section for providing network management in a hybrid wired/wireless local area network, the at least one code section executable by a machine for causing the machine to perform the steps comprising:

receiving at a network device, from one or both of a first access point and/or a first switch, a first messaging protocol message containing quality of service (QoS) information;

responsive to said first messaging protocol message, determining at least a minimum QoS level for operation of one or more of said first switch, said first access point, a second access point, and/or a second switch; and

distributing by said network device, QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch, said first access point, said second access point and/or said second switch, using a second messaging protocol message, wherein said second messaging protocol message is different from said first messaging protocol message.

11. The machine-readable storage according to claim 10, comprising code for providing access to at least one of a plurality of access devices based on said distributed QoS information.

12. The machine-readable storage according to claim 11, comprising code for queuing traffic associated with at least one of said plurality of access devices to maintain said determined at least a minimum QoS level.

13. The machine-readable storage according to claim 12, comprising code for prioritizing said traffic associated with at least one of said plurality of access devices to maintain said determined at least a minimum QoS level.

14. The machine-readable storage according to claim 11, comprising code for scheduling access by at least one of said plurality of access devices to one or both of said first and/or said second access points.

15. The machine-readable storage according to claim 10, wherein said distributing comprises code for distributing said QoS information to at least a portion of the hybrid wired/wireless local area network.

16. The machine-readable storage according to claim 10, comprising code for allocating bandwidth to maintain said at least a minimum QoS level.

17. The machine-readable storage according to claim 10, comprising code for balancing a load on one or both of said first switch, said first access point, said second access point and/or said second switch to maintain said at least a minimum QoS level.

18. The machine-readable storage according to claim 18, wherein each of said first and second messaging protocol messages comprises one or more message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message.

19. A system for providing network management in a hybrid wired/wireless local area network, the system comprising:

at least one receiver adapted to receive from one or both of a first access point and/or a first switch, a first messaging protocol message containing quality of service (QoS) information;

at least one controller adapted to determine at least a minimum QoS level for operation of one or more of said first switch, said first access point, a second access point, and/or a second switch in response to said first messaging protocol message; and

said at least one controller adapted to distribute QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch, said first access point, and/or second access point and said second switch, using a second messaging protocol message, wherein said second messaging protocol message is different from said first messaging protocol message.

20. The system according to claim 19, wherein said at least one controller is adapted to provide access to at least one of a plurality of access devices based on said distributed QoS information.

21. The system according to claim 20, wherein said at least one controller is adapted to queue traffic associated with at least one of said plurality of access devices to maintain said determined at least a minimum QoS level.

22. The system according to claim 21, wherein said at least one controller is adapted to prioritize said traffic associated with at least one of said plurality of access devices to maintain said determined at least a minimum QoS level.

23. The system according to claim 20, wherein said at least one controller is adapted to schedule access by at least one of said plurality of access devices to one or both of said first and/or said second access points.

24. The system according to claim 19, wherein said at least one controller is adapted to distribute said QoS information to at least a portion of the hybrid wired/wireless local area network.

25. The system according to claim 19, wherein said at least one controller is adapted to allocate bandwidth to maintain said at least a minimum QoS level.

26. The system according to claim 19, wherein said at least one controller is adapted to balance a load on one or both of said first switch, said first access point, said second access point and said second switch to maintain said at least a minimum QoS level.

27. The system according to claim 26, wherein each of said first and second messaging protocol messages comprises one or more message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message.

28. A system for providing network management in a hybrid wired/wireless local area network, the system comprising:

at least one controller adapted to determine from a first messaging protocol message containing quality of service (QoS) information and received from one or both of a first access point and a first switch, at least a minimum QoS level for operation of one or more of said first switch, said first access point, a second access point, and/or a second switch; and

said at least one controller adapted to distribute QoS information corresponding to said determined at least a minimum QoS level to one or more of said first switch, said first access point, said second access point and/or said second switch, using a second messaging protocol message, wherein said second messaging protocol message is different from said first messaging protocol message.

29. The system according to claim 28, wherein said at least one controller is adapted to provide access to at least one of a plurality of access devices based on said distributed QoS information.

30. The system according to claim 29, wherein said at least one controller is adapted to queue traffic associated with at least one of said plurality of access devices to maintain said determined at least a minimum QoS level.

31. The system according to claim 30, wherein said at least one controller is adapted to prioritize said traffic associated with at least one of said plurality of access devices to maintain said determined at least a minimum QoS level.

32. The system according to claim 29, wherein said at least one controller is adapted to schedule access by at least one of said plurality of access devices to one or both of said first and/or said second access points.

33. The system according to claim 28, wherein said at least one controller is adapted to distribute said QoS information to at least a portion of the hybrid wired/wireless local area network.

34. The system according to claim 28, wherein said at least one controller is adapted to allocate bandwidth to maintain said at least a minimum QoS level.

35. The system according to claim 28, wherein said at least one controller is adapted to balance a load on one or more of said first switch, said first access point, said second access point and/or said second switch to maintain said at least a minimum QoS level.

36. The system according to claim 35, wherein each of said first and said second messaging protocol messages comprises one or more message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message.

EVIDENCE APPENDIX
(37 C.F.R. § 41.37(c)(1)(ix))

(1) USPP 2001/0024434 ("Ayyagari"), entered into record by the Examiner in the May 11, 2009 Final Office Action.

(2) USPP 2002/0165990 ("Singhal"), entered into record by the Examiner in the May 11, 2009 Final Office Action.

(3) USPP 2003/0142651 ("Matta"), entered into record by the Examiner in the May 11, 2009 Final Office Action.

RELATED PROCEEDINGS APPENDIX

(37 C.F.R. § 41.37(c)(1)(x))

The Appellant is unaware of any related appeals or interferences.